

Health Promotion and Aging
"Alcohol"

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Alcohol is here to stay. Older people probably have a better sense of the meaning of that statement than younger people since anyone over the age of 55 lived part of their life under Prohibition. Anyone over the age of 65 probably remembers at least fragments of the "roaring twenties", and anyone over seventy probably recalls Temperance slogans, speeches and rallies. Older people are also here to stay. With people over 65 representing approximately 12% of the population, they are the fastest growing segment of the society, and include many more people of increasingly advanced age. As the quality of life for these older people is strongly tied to the maintenance of health, it is appropriate that there should be a consideration of the relationship of age and alcohol from a health perspective.

Interest and concern about the incidence of alcohol use and abuse by the older portion of the population have increased dramatically over the last 20 years. This increase is evident in the core of alcohol literature, as well as in the publications of many disciplines, reflecting the multidisciplinary dimensions of the phenomenon. It is being addressed in professional journals, giving evidence that the problem is being encountered by the many systems and agencies that provide services to older people. Yet despite this tide of attention, the area of study and the level of response to the need do not seem to gain much headway. In view of all the needs of older people in our society, problems related to alcohol are relegated to a low place on the priority list. And in the alcohol field, the aged do not appear to generate the excitement and involvement of other population groups.

The society is becoming increasingly sensitive to the presence of elderly people. By sheer weight of numbers, it is becoming more imperative that issues related to their health and well-being be addressed. The pervasiveness of the use of alcohol as a societal practice, and the types of impact that this use can have on the individuals and the resources of the society, require that it be one of the areas addressed in relation to the older segment of the society.

BASIC DEMOGRAPHIC AND POPULATION DATA

Extent of drinking

In considering the data available that indicates the nature and the extent of the problem, it should be noted that the designations of the older age and the designations related to alcohol use and abuse are specific to the individual study, and become relative terms when used to discuss several studies that may not have the same specific criteria.

Cross sectional studies of the use of alcohol have provided information that, when compared to younger age groups, the rates of abstainers increase and the

percentage of drinkers decrease in the older age groups. Cahalan et al. (1969), using national household survey data, reported the percentage abstainers by age group: age 40-49, 29%; age 50-59, 40%; and age 60+, 47%. The proportion of heavy drinkers for the same age groups were 15%, 10% and 6%, respectively. For men, Cahalan reported that more than half of the men over 65 were not regular drinkers (54% being either abstinent or infrequent drinkers) and the lowest percentage of heavy drinkers were found in this age group. In the age group of 60-64, 20% were classified as heavy drinkers, representing 35% of those that drank. At age 65, this figure dropped to 7%, or 11% of those that drank. In the same study, for women, there was similar decline but evidenced at age 50. Two thirds of women aged 50 to 64 did not drink at all or infrequently. After age fifty, the percentage of heavy drinkers among women became inconsequential.

Similar tendencies were reported by Barnes (1979) from a general population survey in western New York state, by Christopherson et al. (1984) from a survey in rural Arizona, and by Meyers et al. (1981) from a household survey in Boston. Barnes noted that while the regional rates of heavy drinking are significantly higher than the national rates, the trends holds. Rates of abstinence increased from 13% for those age 50-59, to 31% for age 60-96. In addition, Barnes refined the age group of 60+ and reported that 24% of males age 60-69 were heavy drinkers; for those age 70-96, 6% were in that category. Among females, heavy drinkers accounted for none of those age 60-69, but 2% of those age 70-90.

The reasons for the decrease in the proportion of drinkers from the younger to the older age categories has been considered by several researchers. Items were included in several studies that inquired about previous drinking patterns or problems. Responses frequently mentioned concerns for health or health problems that were experienced as a reason to temper the quantity and/or the frequency of drinking. Other responses ranged from economic reasons, changing social opportunities, and changing response to the substance. Gomberg (1982) has summarized possible explanations for the decrease in social drinking as economic (decrease in drinking may result from lower income), physiology (change in obtained blood alcohol levels with physical aging), effects of alcohol (resulting impacts and behaviors are no longer worth the cost), life cycle differences (decrease a natural occurrence as cohorts ages), unique historical aspects (drinking habits of current generation influenced by Prohibition, Depression), and medical problems (health status, with increased medical problems, cause older people to limit or eliminate drinking).

Two additional items should be kept in mind when considering this data. The cohorts of older people that are reported in each of these studies are products of the social and historical influences of their time, which are then intertwined with an array of unique individual experiences. Subsequent generations of older people will, in many respects, be very different from the older people of these studies. Specifically, it should be remembered that cross sectional studies present data that evidence a lower percentage of abstainers and an increase in the level of drinking in the younger age groups.

There is also evidence in surveys that drinking practices remain consistent overtime with some people. Christopherson (1984) has presented data that there is a tendency for people to carry drinking patterns into old age as long as circumstances and health permit. Data from the Normative Drinking Study confirms this (Glynn et al. 1984). Men, originally surveyed in their 40's and 50's, ten years later reported consistent drinking habits. It would appear that future

generations of older people would present a larger proportion of drinkers and a potential of more people who continue to drink at higher levels into old age.

Problems with drinking

Evidence of problems related to alcohol use among older people comes from several types of sources with a range of criteria for the designation of a problem. Cahalan (1970) utilized the self reporting of eleven types of problems, including quantity/frequency and pattern of drinking, elements of physical and psychological dependency, and interpersonal, social, health, economic and legal problems. He reported that 12% of men age 60-69 had a current problem score of 7+. For age 70+, it was 1%. For women age 60-69, 1% had a current problem score of 7+; age 70+, less than one-half percent. These figures do represent a tapering off of drinking problems for men after age 50 but continuing until age 70. Further analysis involved the development of a social-psychological risk score which included attitude toward drinking, environmental support for heavy drinking, alienation and maladjustment, impulsivity and non-conformity, looseness of social controls, and unfavorable expectations. Data indicates that men 60+ of highest risk score show almost the same problem score as those of younger age groups.

A second community survey source of information on problems related to drinking is the Epidemiologic Catchment Area Study which utilizes the NIMH Diagnostic Interview Schedule. This schedule provides for assessment of alcohol abuse and dependence based on the American Psychiatric Association's Diagnostic and Statistical Manual, DSM-III (American Psychiatric Association 1980). Three sites of the five in the study have presented information related to alcohol abuse and dependence. The lowest rates of alcohol abuse and alcohol dependency were among those 65+, ranging from 4% to 8% at sometime in their life. In terms of the recent occurrence of problems (within the last 6 months), 3% of males reported a problem, 1% of females. Similar rates were found for blacks and whites, and social class did not appear to have a large effect (Robins, 1984).

Warheit and Auth (1984), investigating concurrent alcohol and mental health problems, found similar rates for alcohol problems within the older population. In looking at the correlation between mental health concerns and alcohol use, an alcohol risk score was developed and the sample divided into high and low alcohol risk groups. Items included were drinking in general, the frequency of intoxication, problems related to drinking (personal, social and family), self-perceptions regarding the appropriateness of alcohol use, and the use of alcohol to face daily problems. For the older segment of the sample, age 50+, the high risk group generally gave more indications of poor mental and physical health than the low alcohol risk group of the same age. Advancing age was highly associated the increasing feelings of helplessness among the high risk group. Self perception of poor health was more common in the alcohol high risk group. In reporting their present mental health, 39% of the high risk group responded fair or poor; among the low alcohol risk group, only 22.1% reported fair or poor mental health. Almost half (46.3%) of the high risk alcohol group reported at least one hospital stay in the last three years, 14.6% had three or more inpatient stays. This is contrasted with the low risk group that reported 28.7% had one or two stays, 4.7% had three or more. Generally, Warheit and Auth concluded that alcohol use rather than age alone seemed to a better predictor of the kinds of health problems that necessitate hospitalization.

Studies that report on the older population within institutions and medical settings provide additional information. McCusker et al. (1971) conducted a prevalence study of newly admitted patients to the medical wards of a New York City hospital serving a high proportion of blacks and Hispanics. Questionnaires were utilized to gather information to rate alcohol related problems over the past year. The moderate level of the scale, identified as the threshold for the diagnosis of alcoholic, identified frequent intoxication up to one or two times per week and/or significant impairment in social, family, or occupational functioning, or evidence of physical impairment related to alcohol. In the age group 50-69, 63% of the males and 35% of the females met this criteria.

A study of 113 consecutive male admissions to acute medical wards was made by Schuckit and Miller (1976) in a Veterans Administration Hospital. Interviews established the patient's psychiatric diagnosis, organicity tests determined the presence of organic impairments, chart reviews provided basic demographic information, past and present physical and mental status, medication and drug and alcohol history. A resource person validated the patient information. Of these admissions, 18% (20) were diagnosed as alcoholic, with 55% (11) of these considered inactive, or having had no alcohol related problem in the 6 months prior to hospitalization, although 3 of the 11 still drank.

Data from psychiatric services provides other evidence: of 534 first admissions of patients age 60+, 28% had serious drinking problems (Simon et al. 1968); in an outpatient psychiatric program in Harlem Hospital, 12% of the elderly were noted as having a drinking problem (Zimberg 1969); in a county psychiatric screening ward, among 100 consecutive admissions of persons 60+, 44% were alcoholic (Gaitz and Baer 1971); and in a medical home care program, 13% of the elderly patients requiring psychiatric consultation were diagnosed as alcoholic (Zimberg 1971).

Although it is not possible to determine the actual prevalence, the fact remains that a sizable proportion of the elderly do evidence alcoholism and problem drinking. While recognizing that older people do drink less, an estimate of the prevalence of alcoholism among those who do drink approximates that of other adults, nearly 8% (Nace 1984). Estimated rates in clinical practice with older people ranges from 10 to 20% with a higher proportion among the elderly who are hospitalized and institutionalized (Schuckit and Pastor 1979, Zimberg 1982).

Different types of presentation

As early as 1968, there were attempts to develop a classification system of older alcoholics. It was recognized that there are sub-groups who presented similar histories and symptoms. Simon et al. (1968) reported that among a group of first admission psychiatric patients with serious drinking problems, age 60 and older, about 1/3 had become alcoholic after age 60, while about 2/3 had been alcoholic before age 60 and had a long history of alcohol abuse. He also noted that a little over 1/3 had chronic brain syndrome, but this diagnosis was not exclusive to either group. The proportion of 1/3 late life and 2/3 long standing was confirmed by Rosin and Glatt (1971) from studies of psychiatric home consultations and admissions to alcoholism units and hospital geriatric units. Schuckit and Miller (1976) also made a distinction between early-onset and late on-set, using age 40 as the demarcation. Among the persons ages 65+ being admitted to a medical ward, using this designation, the groups was almost equally

divided.

Carruth et al. (1973) noted three distinct types: individuals with no history of problem drinking until one developed in response to age related stress, a second group that had at times experienced problems but only developed severe and persistent problematic drinking in old age, and a third group who had a long history of alcoholism and continued to drink into old age. Gomberg (1982) also recognized three groups, the survivors: alcoholic persons who have grown older; those with intermittent histories of heavy drinking in response to severe stress; and the reactive problem drinkers who are responding to the stresses and losses of aging by drinking heavily.

The generally accepted division is that of early-onset and late-onset without a specific age of onset. The distribution of 2/3 early-onset vs. 1/3 late onset is generally confirmed by personnel in the field. Different terms are at times used. Geriatric alcoholics (early-onset) are the stereotypic chronic alcohol abusers who have continued to drink while aging, and geriatric problem drinkers (late-onset) include those who had no history of a problem and those who occasionally experienced problems, all of whom develop abusive patterns in response to the stresses of aging (Dupree and Zimberg, 1984).

Recognizing this general classification facilitates the process of identification and treatment. General characteristics of the early-onset individual include a medical history that indicates extended severe drinking, mental pathologies and personality characteristics related to chronic alcohol use, a social history that indicates the impact of alcohol, such as a poor work history, a disrupted or stressed social and family history, poor relationship skills, and fewer economic resources. Late-onset characteristics generally include alcohol related medical problems that may be acute but of shorter duration, better problem solving and relationship skills, and more stable job, family and social histories. Problems in these areas are usually of recent origin and of shorter duration. Psychological problems are generally more focused upon issues related to age, such as loneliness, depression, grief, boredom and pain.

The hidden older problem drinker

Observations have been made by several researchers that older problem drinkers are a hidden population. The high percentage of alcoholics among the older populations in acute medical and psychiatric institutions is probably more reflective of the debilitating and/or long term impact of alcohol on an older person than it is of the sensitivity of the intervention mechanisms that exist. Perceptions of service providers indicate that the older person is underrepresented in the alcohol treatment network. Many reasons are given for the inadequate level of identification. There is a more subtle presentation of symptoms of problem drinking and alcoholism in older people. Presenting symptoms are inaccurately identified as being related solely to medical or psychological problems associated with the aging process. Care providers, including medical personnel, are reluctant to become involved in the identification/intervention process. The elderly themselves may have a lack of awareness about the effects of alcohol and are reluctant to self disclose. Denial and enabling may exist within family units. Due to the life stage, there is a lack of social and occupational identifiers. Finally, significant others and care providers may have the inaccurate perception that the drinking is a rational choice of

behavior, and further, may believe that it is logical given the age of the person.

ALCOHOL, ALCOHOL USE AND HEALTH

The impact of alcohol and alcohol use on the health and well being of any one older person has many dimensions. Of primary importance is the quantity and the frequency of the drinking experiences. How much alcohol is taken into the system and how frequently these occasions occur generally provide information that allows for the description of light, moderate or heavy drinker. A second consideration is the pattern and the duration of the drinking history. Movement along the continuum of type of drinker at different periods in the life span provides a variable to the current impact. Cultural and social norms that influence the designation of appropriate drinking occasions, such as with meals, or at drinking oriented events, may ameliorate or exacerbate the effect of the alcohol on any one occasion, and cumulatively, the effect of the use of alcohol on the entire system. General physical condition, and all the elements that support that condition, such as genetic factors, nutrition, the balance of rest and physical activity, are important. The presence of chronic and acute medical conditions plays a role, as does the existence of drug regimens, whether monitored by a physician or self-prescribed. Generally, the more intense and prolonged the use of alcoholic beverages, the greater the impact the substance ethanol will have upon the health of the individual.

The general process of aging brings its own contribution to health implications for alcohol use. Response to the aging process is highly individual, in terms of persons and all of the components of each person. But there are general principles that apply. Advancing age witnesses a gradual lowering of the level of the homeostatic state. This is accompanied by a lessening of the physical reserve of the entire system and each of its parts. All body systems and organs tend to decrease in efficiency of operation and to loose resiliency. Stress, whether physical, emotional or environmental, has a greater impact upon the system and each of its parts. Returning to the pre-stress state or finding a new level of balance is more gradual, taking a longer period of time than when younger. Vulnerability to disease states increases with age and is compounded by stress. Disease states also increase the vulnerability of older people to the impact of alcohol.

It is particularly important to remember that, as an individual ages, there are greater mutual effects that operate between the physical, social and emotional health of an individual. The older age stage of life brings unique developmental tasks, stresses and age related life crises. In responding to these tasks, stresses and crises, the totality of the person is affected.

Of specific importance to the use of alcohol and other chemical substances are general physiological changes. With age there is a decrease in the lean body mass and an increase in fat storing tissue. Alcohol, being water soluble, is distributed through less lean tissue, resulting in higher concentrations within organs. Generally, when compared to younger people of equal weight and drinking the same amount, older people may be expected to evidence a higher blood alcohol level. Time and rate are also affected. Age has a tendency to slow both the process of metabolism and of elimination. The blood alcohol level may be held for a longer period of time. In addition, the elimination process may be

particularly affected by the presence of medications. The liver, being the principal organ involved, may be operating at a less efficient level and may be required to process multiple substances at the same time. All of these have impact upon the tolerance level, which is generally characterized as decreasing with age (Schuckit 1980, 1982, and Bosmann 1984).

There are medical and health and safety areas that need particular emphasis in the concern of health and alcohol use as related to older people. It must be emphasized that, although there is a wealth of material that addresses the relationships that exist between specific areas and alcohol, the particular emphasis upon the older person frequently has been inferred from other studies or has been inconclusively explored to date. It should also be noted that biomedical research has not thoroughly explored health problems in the older age group, or among segments within that group.

The cardiovascular system

The implications of alcohol use for cardiovascular disease are particularly important in relation to older people as hypertension and heart conditions account for two of the four most common chronic conditions of non-institutionalized elderly. Although the exact relationship between alcohol consumption and the development of cardiovascular diseases has not been determined, there are areas that are important to consider. Generally, alcohol can have a direct effect on the heart muscle leading to an increase in the cardiac rate and output. In older people this may produce stress on the organ itself and on the rest of the cardiovascular system because of a reduced level of physiological reserve. In individuals with impaired cardiac functioning, this may have the ultimate effect of decreased cardiac output and diminished efficiency of the system. Alcohol can directly affect the heart as a cardiac toxin and the cardiovascular system by increasing blood pressure. Excessive amounts of alcohol have been strongly linked with the development of hypertension, stroke, myocardial degeneration, arrhythmia, and cardiac failure. Alcohol can also mask the symptoms of a disease state, such as angina pectoris. Individuals frequently do not feel the associated pain in the chest while drinking but the medical indications are that the affected tissue continues to suffer from the lack of blood flow. Continued or increased activity may increase the stress level although no pain is felt. (Gambert et al. 1984, Hermos et al. 1984, Kannel 1986, Schuckit 1982.)

There is, however, evidence of lower rates of congestive heart disease in association with moderate alcohol intake. Regular use of alcohol appears to have the effect of increasing high density lipoprotein cholesterol which may retard the development of coronary artery disease (Barboriak et al. 1983, Kannel 1986). Non-drinkers had higher mortality rates than those who drank lightly (in reference to the Normative Aging Study) and non-drinkers had higher blood pressures than those who drank in small amounts (in reference to the Framingham Study) (Gordon 1984.)

The central nervous system

The relationship of the health of the central nervous system in the maintenance of autonomy and independence makes it a particularly sensitive area to consider

in relation to alcohol use and aging. There are changes that do take place with age that result in variations in functioning compared to the time when the individual was younger. But for healthy older people these changes do not necessarily have to exert a deleterious effect on the ability to manage their life or to cope with their environment. Age frequently brings an increase in reaction time and in the time needed to retrieve something from memory. With age, there is also an increased tendency to exhibit confusion when under physical, emotional or social stress. Cognitive processes may be slowed but seldom become impossible tasks for healthy older people. Educational gerontology has contributed much to the affirmation of the ability of older people to perform learning tasks provided that the information is well organized, presented in a way that compensates for sensory changes, that the stress of the learning situation is reduced, and the risks associated with performing incorrectly are minimized.

Ethanol affects the central nervous system. It may have the short-term effect of acting as a stimulant. However, the long-term effects are as a depressant. This may result in respiratory depression, sedative-hypnotic effect, ataxia, pronounced disinhibition, impaired motor skills, neuropathy, and unconsciousness. Age related metabolic changes are generally accompanied by an apparent increase in the sensitivity of the brain to all central nervous system depressing drugs, including alcohol. Very small amounts of alcohol can produce symptoms that are commonly identified as age-related mental decrements, or may exacerbate age related phenomenon. The mis-reading of the presentation of an older person is frequently responsible for non-identification of alcohol problems (Bosmann 1984, Schuckit 1982).

Much research has been conducted on the effect of alcohol upon the central nervous system. A prominent theme in that research is the question of accelerated or premature aging as an effect of alcohol use. Functional changes that are related to aging and functional changes that are the result of alcohol use are frequently very similar in their presentation. The processes of aging and of alcohol intoxication have much in common in the way that they affect memory, learning, recognition and organizational processes. In a "worst scenario" of the aging process or from long and intense use of alcohol, similar organic changes may take place in the brain and disease states occur. Current research outcomes do not seem to support the theory of premature aging. Although chronic alcoholic drinking appears to increase the behavior defects that accompany aging, as yet, a common pathology has not been identified. Alcohol use is responsible for some brain dysfunction, but the effects seem to be independent of and parallel to the effects of normal aging. Studies do suggest that people who use alcohol to excess appear to run an additional risk of neuropsychological impairment beyond what might be expected from the aging process. Further, since some of the deficits related to alcohol use are at least partially reversible, continued research may illicit some value in terms of therapies for age related problems. (Blusewicz 1982, Bosman 1984, Lowe 1985, Parsons and Leber 1982, Russell 1984.)

Medications and over-the-counter drugs

The use of alcohol combined with a regimen of over-the-counter or prescribed medications is a common but potentially lethal occurrence. As one grows older, the number of drugs one takes usually increase. A figure commonly cited is that

older people who are 12% of the population are using approximately 25% of the prescribed medications. Further, it has been estimated that over-the-counter preparations account for approximately 90% of all drugs taken by the elderly (Baker 1985).

The problem of drug use and misuse has many dimensions and is compounded when drugs are used with alcohol. Alcohol interacts adversely with many drugs, a situation that is particularly significant with other central nervous system depressants. Polypharmacy is not uncommon among older people. Frequently, the medical regimens are being prescribed by more than one physician, and older people often have difficulty in correctly self-administering the medications. The potential for drug interactions and adverse drug reactions is great under such circumstances, particularly in view of the changing physiology with age. All of these situations are intensified with the use of alcohol. Adverse drug and alcohol interactions can be potentially life threatening to older people because of the decrease in reserve in vital organs. Many older people have poor or incorrect conceptualizations of how their bodies handle substances and need education in order to practice healthful habits. Further, many professionals and para-professionals who work with older people are unaware of the seriousness or the extent of the problem. (Atkinson 1984, Glantz 1983, Schuckit 1980.)

Nutrition

Healthful nutritional practices among older people have been a concern of many who work and have contact with the elderly. Nutritional practices are affected by the totality of the life circumstances of older people. Social, psychological, economic and physical factors are important to consider. Changing circumstances within the family unit, such as the loss of a spouse, may affect the pattern of food preparation and may precipitate all but minimal attention to the activity. Depression, social isolation and physical incapacity can intensify and make insurmountable the problems related to the maintenance of a good diet. Life-long dietary practices, which may not have seemed problematic at a younger age, now become detrimental and debilitating. Physical changes that are age related, coupled with the use of medications, may require modification of these practices. The ability to make such changes may be limited by a lack of information, minimal economic resources or lack of access to appropriate facilities for shopping, storage or preparation of food.

Malnutrition has been long recognized as being caused by chronic alcohol use. The impact of the use of alcohol on nutrition is seen as a result of a change in ability to function as well as affecting the appetite, absorption, metabolism and excretion of nutrients. When compounded with physiological aging, with the reduction of functional reserves, the effect may be particularly detrimental. It is widely recognized that the elderly user is much more susceptible to the nutritional consequences of alcoholism. It is not as widely recognized that there may be nutritional consequences for the more social user, particularly if there are acute or chronic diseases present and medical drugs are being taken.

There are many specific nutrition-alcohol interrelationships that should be kept in mind both in the maintenance of healthful practices and in the treatment of alcoholism in elderly people. One will illustrate the weight of the area of consideration. The course of normal aging brings a reduction in bone mass as well as reduction of the capacity of the gastrointestinal tract to absorb calcium.

The presence of metabolic acidosis, a common result of consuming alcoholic beverages, may further aggravate a negative calcium balance. The development of osteoporosis, a frequently identified condition in older people, particularly women, may be aggravated by alcohol use. Adequate calcium levels are also required to maintain the transmission of nerve impulses at appropriate levels. These processes are also negatively affected by age and by the presence of ethanol, and may be subjected to a compounded effect. (Gambert 1984, Mishara and Kastenbaum 1980, Russell 1985.)

Carcinoma

The question of the carcinogenic effects of alcohol use have been of concern for several years. It does appear that there is a tendency for the chronic alcoholic to develop squamous cell carcinoma in the region of the pharynx. Carcinoma of the esophagus is frequently detected in those who are diagnosed as alcoholic, representing over half of all cases of esophageal cancer. There is some evidence that alcohol abuse may also be associated in the development of carcinoma in the mouth.

However, there are methodological problems in the research in this area. It becomes extremely difficult to distinguish between the effects of alcohol and other factors that are frequently present, such as smoking, exposure to pollutants and malnutrition. It has been estimated that approximately 90% of alcoholics are also smokers, and the role of smoking to the development of some kinds of carcinoma has been well documented. Research has also indicated that there may be carcinogenic implications related to the way cells respond to ethanol. It does not appear, however, that alcohol has an equal role in the development of all types of cancer, and where there does appear to be a relationship, additional research is still desired. (Bosmann 1984, Bambert 1984, Mishara and Kastenbaum 1980.)

Safety

Problems related to safety and alcohol use are many, from pedestrian accidents to the interference of an alcohol-induced state in performing simple chores in the kitchen. Stress for older people who are injured in accidents has the same ripple effect on their health and mental outlook as disease states. Older people seem particularly susceptible to falls. Hingson and Howland (1987) report figures from the Center for Disease Control, indicating that each year 200,000 older Americans experience hip fractures associated with falls. Older people are also disproportionately represented in deaths from falls, over one-half of fatal falls involve persons over 75 years of age. There is a strong link between the use of alcohol and falls. In fact, one of the items frequently included in a list of clues of a drinking problem is the experience of falling. Although there is substantial evidence that alcohol increases the risk of falls, studies have not yet provided information that is specific to the elderly. However, from a perspective of maintaining safe practices, the potential effect of the use of alcohol on the incidence of falls among older people should not be neglected (Hingson and Howland 1987).

In discussing burns of older persons, Anous and Heimback (1986) noted that frequently burns tend to be deeper because of delayed reaction times, impaired

senses and the fact that many older burn patients live alone. The reduced capacity of the older physical system has special import in dealing with the stress related to the burn experience as well as affecting the process and time of healing. It was also noted that older cases with documented alcohol problems tended to be loners and to have a higher percent TBSA (Total Body Surface Area) burn. (Anous and Heimbach 1986.)

Benefits from alcohol use

The beneficial use of alcohol with older persons has been a recurring theme in the literature that relates to aging and alcohol. Stories of the prescribing of spiritus frumenti have been documented in many case histories and in studies of practices within care facilities for older people. Common conditions that are addressed in this manner are loss of appetite, as an aid to digestion, as a nutritional supplement, as a relaxant, sedative and a sleeping aid. Most studies of the use of alcohol generally conclude that there is a therapeutic value to the serving of alcoholic beverages in institutional settings. Some note that, under such conditions, the medication levels may be reduced. In many of the studies, there was an effort to provide a varied or special setting for the events of drinking, as well as there being additional staff and others present who were involved in exchanges with the residents of the facility. These factors make it difficult to identify the exact source of the benefits observed (Mishara and Kastenbaum, 1980). In reporting on their own research, Mishara et al. (1975) stated that the amount of alcohol that was consumed was small and that there was an effect of the social setting that supported drinking. There was evidence of psychological benefits in terms of morale, improved sleep and a general sense of improved well-being. It was particularly noted that the participation in the study was voluntary and that a physician's approval had been obtained for each participant.

Other studies have been conducted with non-institutionalized older people. In his study, Kastenbaum reported on the effects of the use of one or two 3 ounce servings of wine on self-sufficient older people living in the community. It was noted that the changes, both those that were subjective and self-reported, and those that were determined by psychological assessment procedures, were generally in the positive direction. On the subjective items, participants reported improved subjective status in terms of morale, improved sleeping patterns, reduced chronic fatigue, anxiety and depression. In objective tests, there was a tendency for those with relatively better functioning to show improvement in behaviors and performances that have strong cognitive components. (Mishara and Kastenbaum 1980.)

Health issues in treatment

For the older person, entry into the treatment system is frequently through a health care agency, usually the acute care hospital. Compared to younger people the older person often presents in a more debilitated condition. Because of the number of pathological conditions that may develop as a result of long term alcohol use, it is not infrequent that the older persons enter the system for treatment of other diagnosed conditions, and then in the process of medical treatment, are encouraged to confront the reality of the relationship that alcohol use has to the current condition and to the prognosis for recovery.

While recognizing that all systems of the body are affected by the use of alcohol and have the potential of reacting adversely, there are certain medical conditions that are indicative of long term use. Cirrhosis of the liver, gastritis, chronic or acute pancreatitis, with accompanying abdominal pain, weight loss and diabetes are significant risks of long term use. Other conditions frequently associated are atrophy and weakness of the muscles, polyneuropathy, the inability of the body to fend off infections or to support healing, malnutrition and dehydration. Pneumonia and pulmonary tuberculosis also occur more frequently among alcoholics. In advanced cases, severe neurological damage may be seen as Korsakoff's psychosis and Wernicke's disease (Mishara and Kastenbaum, 1980). Generally, the late-onset individual presents with fewer and less severe medical complications, although Schuckit and Miller (1986) do point out that this type drinking is during the medically vulnerable years and may cause disproportionate medical problems.

Because of the greater likelihood of the older person entering treatment for related health conditions before entering alcoholism rehabilitation programs, the role of the health care professional in identification and intervention must be recognized. Most older people trust medical personnel and hold them in high regard. Being able to accurately assess the situation, to interpret the presenting symptoms correctly and to use the medical record to facilitate breaking through the denial make the health professional a vital link in the network of treatment. The value that many older people place on their health often facilitates and provides motivation for engaging in the process. (Mishara and Kastenbaum 1980, Schuckit 1982, Sherouse 1983.)

There are many medical and health issues that need to be considered in the course of treatment. There is no agreement on the use of medications in the process of treatment, with particular concern focusing on minor tranquilizers and sedatives (Gomberg, 1982). Monitoring the physical conditions and the medication regimen is an ongoing process. In the course of treatment, with medical care, good nutrition including vitamin therapy, and appropriate rest, there is frequently an improvement in the physical well-being of the older person, and specific medical conditions may abate in their severity. However, a parallel situation may also develop. Conditions whose presence and pain are masked by the anesthetic quality of the alcohol become evident. After the alcohol is out of the system, dental problems, urinary tract infections, venereal disease and other conditions may be identified in the course of rehabilitation.

Because of poor physical condition and lack of reserve, older people may require more direct nursing care and help with meals, bathing and personal care. The daily schedule of the treatment program may tax their strength and endurance, and the requirements may have to be modified to allow for more rest. Attendance to medical needs, perhaps even readmittance to an acute care facility, may interrupt the treatment schedule and necessitate decisions or adjustments in administrative policies. The need for a wheel chair, crutches, or assistance in movement affects the participation of the client and requires additional concern on the part of the staff. Attention to hearing aids, teeth, eye glasses, and similar devices, facilitates the recovery process in terms of participation, self-image, and the development of good health habits (Williams 1985).

Other relevant treatment issues

The issue of the responsibility of providing treatment services for the older alcoholic generally focuses on the questions of which service system, age or alcohol treatment, should carry primary responsibility, and whether there should be specialized programs within existing systems. Little has been done to evaluate the effectiveness of different systems or different treatment modalities with older people. Treating within the alcohol service system has been the general approach, with the recommendation that there be some adaptations and a specialized outreach program to reach the older person (Janik and Dunham 1983). Emphasis upon social supports and peer groups appears to increase positive outcomes (Kofoed et al. 1987, Zimberg 1982).

Payment for treatment requires that there be an appropriate mesh between the treatment needs of the individual, the types of alcoholism services that are available and acceptable to that person, and the regulations that govern the resources that may be tapped, whether Medicare, Medicaid, private third party, veterans benefits or others. Working with an older person in need of treatment often requires unusual orchestration abilities on the part of the service provider in order that access to all phases of treatment becomes financially available.

Prevention

Opportunities for prevention programs do exist. Two excellent possibilities exist through the development of self-help groups for older people and the preretirement and retirement planning groups that are often a part of personnel services in industry and business, labor and professional groups and organizations (Gomberg, 1982). Such programs would be of primary benefit to individuals who may at be at risk for the development of late-onset problems. Self-help groups could be developed in the community under the sponsorship of senior centers, community mental health programs, voluntary organization and others. These groups would have the advantage of being holistic in their approach, providing life-coping skills and support systems. By including substance use within their concerns, but avoiding the label, these groups would be more appealing to older people who frequently feel stigmatized by the words problem drinker or alcoholic.

Secondary prevention services could be provided by the development of programs that would sensitize and provide skills to service providers of older people, whether in medical or social services. Intervention at the earliest possible stage precludes the further exacerbation of medical, psychological and social problems, optimizing the possibilities of successful treatment within the context of continuing support systems. Tertiary prevention is an integral part of treatment, targeted to the successful completion of treatment and the prevention of future problems. This approach must also include the development of life skills to help the older alcoholic successfully adjust to the realities of his/her life stage.

There are many programs that have been developed to address prevention issues on all levels. Only a few examples will be cited. The Senior Alcohol Services of Vancouver, Washington, provides community training and information as well as treatment that includes aftercare, couples' counseling and family groups. The Massachusetts Housing Finance Agency through its Tenant Assistant Program (TAP)

provides education, information and referral services in a program that concentrates on outreach to improve the quality of life of the tenants. Elements of the program address all three levels of prevention. The Michigan Office of Substance Abuse Services and the Michigan Office of Services to the Aging sponsored the development of a three volume guide, Older Adult Substance Abuse, designed to foster a team approach to prevention. The three volumes are A Resource Manual, Prevention Program Development, and Medications Information. (Resch and Christensen, 1983.) The Wisconsin Department of Health and Social Services issued a planning guide, Examination of Problems and Solutions Related to the Chronic "Revolving Door" Alcohol Abuser. The final report contains 26 recommendations to break the cycle and to provide for meaningful alternatives. (Wisconsin Department of Health and Social Services 1981) The AAA Foundation for Traffic Safety of Falls Church, VA, has developed a film with guide, Senior Adults, Traffic Safety and Alcohol, which provides information for older people about the substance and the effects of alcohol and problems that it may generate.

A SAMPLE OF NATIONAL EFFORTS

There have been efforts by several agencies and groups to address the concern of aging and alcohol use on a national level. The four that are mentioned are by no means the only efforts, but do illustrate the variety of the efforts that have been made, representing a public policy effort, research, and a treatment related project.

Blue Ribbon Study Commission on Alcoholism and Aging

The Blue Ribbon Study Commission on Alcoholism and Aging, sponsored by the National Council on Alcoholism, was convened in the fall of 1979 with the Honorable Wilbur D. Mills as chairperson. The Commission was composed of a broad range of representatives from government, academia, voluntary organizations and the health and social service sectors. The stated goals of the Commission were:

1. to gather and evaluate present knowledge concerning alcoholism and aging;
2. to identify and analyze the information needed for thorough understanding of the problem through defining specific issues;
3. to identify and evaluate the options open as to what can be done to resolve these issues successfully; and
4. to disseminate the information gathered to the American public and to groups and individuals directly involved in the policy and implementation process. (News release of the National Council on Alcoholism, February 22, 1980.)

The outcomes of the Commission are three. 1. The Commission sponsored a two day tract, The Aging and Alcohol Abuse, at the 1980 National Alcoholism Forum of the National Council on Alcoholism. 2. It organized and sponsored a Mini-Conference on Aging and Alcoholism, held at Wingspread, Racine, WI, in conjunction with the 1981 White House Conference on Aging. 3. It prepared a report, with recommendations, to be included in the proceedings of the 1981 White House Conference on Aging. Six categories of recommendations were included: research and development, education and training, increasing the utilization of services, ensuring and improving the effectiveness of treatment, increasing the availability and access of services and protection of patients' rights.

Research center on aging and alcohol established

In December 1982, the National Institute on Alcohol Abuse and Alcoholism funded the Alcohol Research Center at the University of Gainesville, one of nine national research centers. This center is specifically designated to conduct research into the causes and the consequences of alcohol use and abuse by the elderly. As an interdisciplinary center, the research agenda includes a multi-faceted approach to the subject. An extensive educational program for a broad spectrum of health professionals is a major component of the activities.

Research conference

In November, 1983, a national research conference was convened on The Nature and Extent of Alcohol Problems Among the Elderly. The conference was sponsored by the National Institute on Alcohol Abuse and Alcoholism in collaboration with the National Institute of Mental Health and the National Institute on Aging. The conference produced a monograph by the same title, edited by George Maddox, Ph.D., Lee N. Robins, Ph.D., and Nathan Rosenberg, Ph.D.. In the preface it is stated that "the workshop at Washington University was intended as a beginning point in a systematic NIAAA effort to stimulate research interest and activity in the alcohol-aging area." (p. v.) The keynote address of the conference by Robert Straus (pp.7-28) focused on factors of change as related to both aging and alcohol, the need to develop a biomedical perspective in relation to the topic, and stated that both alcohol studies and gerontology were entering a biobehavioral era of scientific thought and activity. The conference was organized to present key issues and current evidence of mental health and social correlates of alcohol use, presented from research of the Alcohol Research Center of the University of Gainesville, FL, longitudinal data of alcohol problems among the aged from studies in St. Louis and from the Normative Aging Project of the Veterans Administration, and research data from the Epidemiological Catchment Area Studies. Future research needs were addressed by most participants in the course of their papers, emphasizing the need for more current and more extensive research that is specific to the older population.

A demonstration project related to treatment

The Health Care Financing Administration Alcoholism Project was a three year demonstration project targeted to evaluate the cost effectiveness of reimbursement under Medicare of treatment in non-hospital settings. Of the six states involved in the project, most also included the provision of reimbursement under the state funded medical assistance program or Medicaid. Because of the source of the reimbursement funds, in most agencies, there was the added benefit of stimulating the entry of the elderly into treatment. In addition to collecting data related to the reimbursement effect, agencies who participated increased and expanded their experiences with the elderly, and developed and adapted treatment modalities to meet the need of this population. A report on this additional benefit of the project was prepared by the Rutgers University Center of Alcohol Studies, New Brunswick, New Jersey. The evaluation of the data related to the reimbursement study has not yet been completed.

A LOOK TOWARD THE FUTURE

The identification of "what needs to be done" frequently has the quality of confused time sequence. Research of the problem area should precede the development of policy which would in turn give impetus to program development. But it is impossible to begin again. The reality is that movement on all fronts is needed and must proceed as best possible.

The relationship of research in the field of aging and alcohol to the development of public policy has been addressed by Stall (1987). Stall proposes a particular value of long-term perspective research as an integrative and interpretive tool for reassessing the data from both retrospective and cross sectional studies. Such research would make it possible to test and evaluate the hypotheses that have been advanced to explain the data, and would provide direction for the development of public policy. Ruben (1986) points out that elements of incongruence are present between public policy and what we do know about the nature and the scope of the problem. Future development of policy would benefit from consideration of these observations.

In relation to health and aging, there are many avenues of research that have been opened but not fully addressed. Enumeration of specific areas is repetitive and more adequately done by those whose expertise is within the specific areas of study. However, in reviewing studies, it becomes very evident that much of what we understand is based on studies that are not age and/or alcohol specific. Whereas, there is justification for applying the results of such research to the aged or to alcohol problems, additional studies that are focused on the problem area would provide a firmer foundation for the development of policy and the implementation of programs of prevention and treatment.

Programs, and ultimately people, who are coping with the problems of aging and alcohol abuse, are impacted by policies in the fields of aging, alcohol treatment, health, social services, housing, transportation, and innumerable other areas of governmental responsibility. How these policies intermesh is a prime concern for the issue of aging and alcohol. The perspective from the field frequently is that policies interact in ways that are more prohibitive than facilitating. In considering what policies should be enacted, this concern should be addressed. For example, these questions might be discussed:

What weight should be given to current epidemiological projections in the consideration of policies related to the development of programs of prevention and treatment?

What effect do current health care policies, such as the DRG's, have upon the provision of the level and the extent of medical care needed by the older person who may have multiple and extensive needs related to alcohol abuse?

What policies would facilitate the development of primary prevention programs in the arenas that are most utilized by those at high risk? What incentives might be offered to encourage the private sector to be involved in the provision of prevention programs related to late-onset alcoholism?

In what areas should policies be developed to address the high cost of providing institutional care for those severely disabled by alcohol? Are

other options possible that would allow for a more optimal quality of life?

What policy provisions are possible that would encourage and support linkages between alcoholism treatment and age services to actualize the concept of continuity of care?

Based on evaluative research of treatment modalities, what policy decisions should be considered to support specialized components to provide treatment for older persons?

Are federally sponsored programs for volunteer service appropriate avenues for involving older people in the process of addressing the need for education and prevention in relation to alcohol use and health?

The range of exploration is limitless. And the time is now.

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